wherein at least 10% of the amino acid residues are histidine and at least 10% of the amino acid residues are non-histidine, wherein the non-histidine residues are selected so as to tailor the transport polymer to the pharmaceutical agent and a method of association between the pharmaceutical agent and the transport polymer, and wherein the molecular structure of the peptide is selected from the group consisting of:

linear, with the proviso that:

a. the entire sequence of said peptide cannot be described by the formula: $(XHHX)_n$, wherein H is histidine, X is a hydrophobic amino acid, and n is an integer greater than or equal to 4;

b. the entire sequence of said peptide cannot be described by the formula: $(XHXH)_n$, wherein H is histidine, X is a hydrophobic amino acid, and n is an integer greater than or equal to 4; and

c. said peptide does not comprise a hexa-peptide having the sequence His-His-His-His-His-His, unless at least 10% of the remaining amino acid residues of said peptide are histidine; and

branched, with a backbone of 1 or more amino acid residues and at least one branch of 1 or more amino acid residues covalently attached to a side-group of an amino acid residue of said backbone, with the proviso that each branch can consist of a single histidine residue only if the backbone does not consist solely of lysine residues; and

optionally, at least one intracellular delivery component associated with said transport polymer and/or said pharmaceutical agent.

28. (New) The pharmaceutical agent delivery composition of claim 27, wherein the pharmaceutical agent has an overall net negative charge, and wherein the method of association between the pharmaceutical agent and the transport polymer is non-covalent.

29. (New) The pharmaceutical agent delivery composition of claim 28, wherein the pharmaceutical agent comprises nucleic acid and wherein the non-histidine residues are each independently selected from the group consisting of amino acids with

a side-group that carries a positive charge at physiological pH and amino acids that are neutral at physiological pH.

30. (New) The pharmaceutical agent delivery composition of claim 29, wherein the non-histidine residues are each independently selected from the group consisting of lysine and glycine.

31. (New) The pharmaceutical agent delivery composition of claim 28, further comprising at least one intracellular delivery component.

32. (New) The pharmaceutical agent delivery composition of claim 31, wherein the intracellular delivery component comprises a lipid.

33. (New) The pharmaceutical agent delivery composition of claim 32, wherein the lipid is a cationic lipid.

34. (New) The pharmaceutical agent delivery composition of claim 34, wherein the molecular structure of the peptide is linear.

35. (New) The pharmaceutical agent delivery composition of claim 28, wherein the molecular structure of the peptide is branched.

36. (New) The pharmaceutical agent delivery composition of claim 28, wherein the pharmaceutical agent comprises a therapeutic agent selected from the group consisting of an antisense oligonucleotide, a ribozyme, an RNA-cleaving DNA oligonucleotide, an expression vector, and a combination of two or more of the above.

37. (New) The pharmaceutical agent delivery composition of claim 36, wherein the therapeutic agent is an RNA-cleaving DNA oligonucleotide which targets VEGF receptor mRNA.

38. (New) The pharmaceutical agent delivery composition of claim 28, wherein said peptide comprises a segment of amino acid residues selected from the group consisting of:

K-H-K-H-K-H-K-H-K-H (SEQ ID NO: 14),

K-H-K-H-K-H-K-G-K-H-K-H-K (SEQ ID NO:1),

K-H-K-H-K-H-K-G-K-H-K-H-K-H-K (SEQ ID NO:2),

K-H-K-H-K-H-K-H-K-G-K-H-K-H-K-H-K-H-K (SEQ ID NO:3),

K-H-K-H-K-H-K-H-K-G-K-H-K-H-K-H-K-H-K-G-K-H-K-H-K-H-K-H-K (SEQ ID NO:4),

K-H-K-H-H-K-H-H-K-H-H-K-H-H-K-H-H-K-H-K (SEQ ID NO:5),

K-K-H-H-H-K-H-H-H-K-K-H-H-H-K-H-H-H-K-K (SEQ ID NO:6),

H-H-K-H-H-K-H-H-K-H-H-K-H-H-K (SEQ ID NO:15),

K-K-H-K-H-K-H-K-H-K-G-K-H-K-H-K-H-K-H-K-K (SEQ ID NO:16),

end-to-end repeats of one or more of the above sequences, and the reverse of any of the above sequences.

39. (New) The pharmaceutical agent delivery composition of claim 27, further comprising a transition metal.

40. (New) A method for delivering a pharmaceutical agent to the interior of a cell, said method comprising a step of contacting the cell with the pharmaceutical agent delivery composition of claim 27.

41. (New) The method of claim 40, wherein the pharmaceutical agent has an overall net negative charge, and wherein the method of association between the pharmaceutical agent and the transport polymer is non-covalent.

42. (New) The method of claim 41, wherein the pharmaceutical agent comprises nucleic acid and wherein the non-histidine residues are each independently selected from the group consisting of amino acids with a side-group that carries a positive charge at physiological pH and amino acids that are neutral at physiological pH.

43. (New) The method of claim 42, wherein the non-histidine residues are each independently selected from the group consisting of lysine and glycine.